

A METHOD OF PRESERVING ALGÆ.

ALGÆ for demonstration purposes may be preserved without trace of shrinkage and mounted for permanent use in the following manner: Kill and fix in Flemming's weaker formula (10^{cc} 1 per cent. osmic acid; 10^{cc} 1 per cent. acetic acid; 25^{cc} 1 per cent. chromic acid; 55^{cc} distilled water). This may be used from one-half hour to twenty-four hours or more without injury to delicate tissues. Next drop 10 per cent. glycerine directly into the fixative. Be careful to allow each drop to diffuse before adding more. This guards against shrinkage which is caused by diffusion currents if glycerine is added too rapidly. Continue adding drop by drop until enough glycerine has been put in to cover the specimens when evaporated. The fixative and water should now be allowed to evaporate in a watch glass where a large surface is exposed. The specimens may now be handled with a needle or knife and arranged on the slide under a dissecting microscope. A drop of pure glycerine or of glycerine jelly makes a very satisfactory mount. Glycerine jelly has to be used very carefully, but it is the more satisfactory when it can be used with success. Filamentous forms should be cut while fresh into pieces of convenient length for handling.

This glycerine method is extremely convenient for preserving fruiting forms, for demonstration of swarm spore and zygospore formation. The more delicate stages may be fixed and mounted on the slide so that they need only be handled once. The method was devised and thoroughly tested in the laboratory of Lake Forest University last year. Since leaving Lake Forest I have used it successfully in preserving red algæ at Wood's Holl. Some of them, as *Dasya*, retain their color almost perfectly under this treatment. Although color in green algæ is more or less sacrificed, the chromatophores retain their shape perfectly, while the cells as a whole become even clearer than fresh material.—CHAS. THOM, *Missouri State University*.

NOTES ON THE WOODY PLANTS OF THE SOUTH
ATLANTIC STATES.

I HAVE collected at several places in the mountains of the southern states a *Fothergilla* which is evidently distinct from the coastal plant. Descriptions of both are given, taken from a large number of specimens. The Alabama plant I have not seen.